



## REPLACEMENT SHEET

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The intron sequences between exons 2 - 3 and exons 18 - 19 are missing (introns: small letters, exons: capital letters). Small letters in the first exon indicate nucleotides that have not been unambiguously determined.

### Exon 1

1 CGGGTGAATC CCGGGCGCCGC GCCCCGGACC CGCAGCTCCC TGCACTCCTC  
51 CCTCCCAGCC GCTTTAACAC CCACACCCCA CAGTCTCTCC CACG<sub>s</sub>CCGCG  
101 CCTTGGCGGC CCCACTGAAT CCCTACGCGG GGCCCAGCGG TACCGGGAGA  
151 CCGGGCTAGC CTATGGGAGC GCCCAGATAA CGCGGGTTGG GGGCGCCCGC  
201 GCCCC<sub>c</sub>CATCC CCGCCAGC**A****T** **G**ACTCGATCG CCGCCCCCTCA GAGAGCTGCC  
251 CCCGAGTTAC ACACCCCCAG CTCGAACCGC AGCACCCCAG gtgagtagag  
301 ggggagctgg aagaaggaag agagcggagc caggtctgtc actcgggcct  
351 ctgcaaggtt tgtgatgtct tgaagtgccg agtgtcatta gatgtctgaa  
401 ggcaagttag agccagcacc gcaagcaagt tgtgcgtgtg tgtcggtgtg  
451 tctgtgccgg tgtctcctca tcgtctggcc agtgagaatg aatgtctgtg  
501 gttcaccc ttgttccacc cgacgacagg tgtgttaca tatgtatcct  
551 gctctcagaa aatgggccta tgccgccggg cgccgtgact cacgcctgta  
601 atcccaacac tgggaggctg aggcaggcag attacctgag gtcaggagtt  
651 cgagaccagc caggccaaca tggggaaact ctgtctctac taaaaataaa  
701 aattagcagg gcgtggtggc gggcgctgt agtccaaact actcgggagg  
751 ctgaggcagg agaatctctt gaacctggga ggcggaggtt gcagtcaagc  
801 cgagatcaca ccactgcact ccagccaggg caacagagcg agatgcgtct  
851 caaaaaaaaaa aaaaaaaaaa aaaaggagag aaaacaaaaa gaaaagaaaag  
901 gaaaataggc ctatgccttc ctcaggtgtg tgctggggat ggtgggtgtt  
951 acatcttcca agtctggcc tgggtctgtg ttgggtgtcc ctgtcccaca  
1001 tccagaaatc aagaagcgag ggctggcag cagatataca gggtgagaag

Fig.1A



## REPLACEMENT SHEET

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1051 ggaaggattt catgcattgt tacagtgtatg cctggctgac ccttctcttt  
EXON 2  
1101 ccatcccaagA TCCTAGCTGG GAGCCTGAAG GCTCCACTCT GGCTTCGTGC  
1151 TTACTTCCAG GGCTGCTCT TCTCTCTGGG ATGCGGGATC CAGAGACATT  
1201 GTGGCAAAGT GCTCTTCTG GGAUTGTTGG CCTTTGGGGC CCTGGCATT  
1251 GGTCTCCGCA TGGCCATTAT TGAGACAAAC TTGGAACAGC TCTGGGTAGA  
1301 AGTGGGCAGC CGGGTGAGCC AGGAGCTGCA TTACACCAAG GAGAAGCTGG  
1351 GGGAGGAGGC TGCATACACC TCTCAGATGC TGATACAGAC CGCACGCCAG  
1401 GAGGGAGAGA ACATCCTCAC ACCCGAAGCA CTTGGCCTCC ACCTCCAGGC  
1451 AGCCCTCACT GCCAGTAAAG TCCAAGTATC ACTCTATGGG AAG.....  
1501 ..... ..... ..... ..... ..... ..... g  
1551 tgagtctggc tgagccccctg agcagctggg ggcgaggcgt gctgtgggg  
1601 ttctggagtg ggaatccccct tcttctgctg atctcctatg cccctggcta  
EXON 4  
1651 ttgcagTCCT GGGATTTGAA CAAAATCTGC TACAAGTCAG GAGTTCCCCT  
1701 TATTGAAAAT GGAATGATTG AGCGGGtaag tgtcctgaga gggagtagag  
1751 gcagaacttt ttctgttagcg tgggaggact cagagaccga gcaagcccc  
1801 cagcctgcaa tctgccccct taaaactaag gagggggatt gcagagggca  
1851 tcctacaaag gttgtggggc aggactgacg tggcccgggg tatccctggc  
EXON 5  
1901 agATGATTGA GAAGCTGTTT CCGTGCCTGA TCCTCACCCCC CCTCGACTGC  
1951 TTCTGGGAGG GAGCCAAACT CCAAGGGGGC TCCGCCTACC TGCCgtgagt  
2001 gccactcctg gggccctgct tcacatccccg ctggggactc tcccaagcaga  
2051 aaggaggggt ctgggaaatg aggatgatca aaaccttacc aaggctctaa  
2101 ttacctccca ggccaggaac agagagcatg ggcttccca aggtctctc  
2151 cacatcctcc ttctcttcc ctctcaagga aggaagacct gacttattta  
2201 cacaaaacta aacacaaaaga tctgtaagat ctgagcaaag gagaaaaaaga  
2251 tccccacaaa gaggcttgc tggggaaat taccttaggtg tttgctaagc  
2301 cattgcccag gccagaaaaga aaacctgcta caggcatgtg cctgctgggt  
2351 gtatattaga accaagcaca cagcttggta aggaactcag tggggccctt

Fig.1B



## REPLACEMENT SHEET

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2401 ctggccctt tctatgtatt aggttaaccctt gccctgatat tcgtctcagc  
2451 cccttgtact cttctacagc tcactgttagc accctggtgg gcccattgcag  
2501 cctggcagtt ctgagaagct gaggcttgca caccctccat atggaaggac  
2551 aaatcggcag ataagaggag ggtggggtagc agcatggcgc cccagcagca  
2601 gtttggagcc tgggtttcg tccctgaccc tcaccaacta taggctttc  
EXON 6  
2651 cctcagCGGC CGCCCGGATA TCCAGTGGAC CAACCTGGAT CCAGAGCAGC  
2701 TGCTGGAGGA GCTGGGTCCC TTTGCCTCCC TTGAGGGCTT CCGGGAGCTG  
2751 CTAGACAAGG CACAGGTGGG CCAGGCCTAC GTGGGGCGGC CCTGTCTGCA  
2801 CCCTGATGAC CTCCACTGCC CACCTAGTGC CCCCAACCAC CACAGCAGGC  
2851 AGgtgggttc caaccaggc tgccaggaa aggctgttt cttcccttt  
2901 cccttcctca tactcctgtg ttctggggaa gctgactgct ctgtgccctg  
2951 accccccact tcctggccat tattaccctg ctccccacagt gccaggcccc  
3001 caatgttcca ttcccattca gttatcctac ggagccctca agtggatat  
3051 atgaatccct tttcccttt ctaagcctag ataaggctgg acttctttt  
3101 ttttttttt ttgagtctca ctctgtcacc caggctggag tgcagtagtt  
3151 cgatcttggc tcactgcaac ctggctcaa gcaattctcc tgccttagcc  
3201 tcctgagtag ctgggattac aggtgcccac caccatgccc ggctaatttt  
3251 tattagcctc ccaaagtgct gggattacag gcgtgagcca ctgcgcctgg  
3301 ccaaggctgg acttttatac aaaatagact aatacaggaa aactaagaac  
3351 acagcaggtt agcatgaata tcatacctgg tttccctggg ttctttgtgg  
3401 ccctgcaaatt gtggtaactt tttcagaatc cgccagttac accagctcct  
3451 cccagaagcc tacttccagg cctctgcttc ccctggggc ttctgtctg  
3501 cgggataacta gctgttcaact cctgcagagc agtcaagagg ctcagaataag  
3551 ttacctacac tccagcccta ctgagcttca tggcagcgtg gttcctggag  
3601 gtggaaagccc agggacactc agttatccac ggccaggccc ttgagcatta  
EXON 7  
3651 accccctcctg ttcccttcca gGGCTCCCAA TGTGGCTCAC GAGCTGAGTG  
3701 GGGGCTGCCA TGGCTTCTCC CACAAATTCA TGCACTGGCA GGAGGAATTG

Fig.1C



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3751 CTGCTGGGAG GCATGGCCAG AGACCCCCAA GGAGAGCTGC TGAGgttaggg  
3801 tctcctctgg gagttggtaa ggggactctg ttcatgagaa cccatactgt  
3851 aatgccaggc agctctggca aaaggccctt cacatccctc accaggtgtt  
EXON 8  
3901 tgggccagct ctgaccctg gttctccac accccacca gGGCAGAGGC  
3951 CCTGCAGAGC ACCTTCTTGC TGATGAGTCC CCGCCAGCTG TACGAGCATT  
4001 TCCGGGGTGA CTATCAGACA CATGACATTG GCTGGAGTGA GGAGCAGGCC  
4051 AGCACAGTGC TACAAGCCTG GCAGGGCGC TTTGTGCAGg tcggtatgga  
4101 caaggacaag ggggtgccc tgaggccatt ccctcctctt gccccctcct  
EXON 9  
4151 atccaccctg tttctccagC TGGCCCAGGA GGCCCTGCCT GAGAACGCTT  
4201 CCCAGCAGAT CCATGCCTTC TCCTCCACCA CCCTGGATGA CATCCTGCAT  
4251 GCGTTCTCTG AAGTCAGTGC TGCCCGTGTG GTGGGAGGCT ATCTGCTCAT  
4301 Ggtgggtctt gcacctggca cttggccccc accccaccc tcaccagtgc  
EXON 10  
4351 ccaccctggg agccctgag actgccttt ccccccacag CTGGCCTATG  
4401 CCTGTGTGAC CATGCTGCGG TGGGACTGCG CCCAGTCCCA GGGTTCCGTG  
4451 GGCCTTGCCG GGGTACTGCT GGTGGCCCTG GCGGTGGCCT CAGGCCTTGG  
4501 GCTCTGTGCC CTGCTCGGCA TCACCTTCAA TGCTGCCACT ACCCAGgtac  
4551 gccaggactg cagggcagac tcagtgcctg tcaccaggct tcacgggtcc  
EXON 11  
4601 tcagctgccc gctcctctgc ccctccagGT GCTGCCCTTC TTGGCTCTGG  
4651 GAATCGGCGT GGATGACGTA TTCCTGCTGG CGCATGCCTT CACAGAGGCT  
4701 CTGCCTGGCA CCCCTCTCCA Ggtggggct tggcccccag ggctcatctg  
4751 aggcagctca gcttactggtaa agagcctc ttgggtcaag tgacccttgg  
4801 gctgctaattg aacctcggtg ccttgcctcc ccattgtaa acagggaaaa  
4851 taatagtgtc gtgtcctaag ggttattgtt tggatcagtg aggttaactca  
4901 agttgaatgc tttagaacagc ccattatacg tacatggtaac ccaataaatg  
4951 ctggccactg tggtatgact gccccaccc tcaccccaaa gttcctgagc  
5001 ctcccccttca ctccactttg acacggcccc tcccttgta cctgaggga  
EXON 12  
5051 ggtccccact ctgtcctggc agGAGCGCAT GGGCGAGTGT CTGCAGCGCA

Fig.1D



## REPLACEMENT SHEET

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5101 CGGGCACCAG TGTCTGACTC ACATCCATCA ACAACATGGC CGCCTTCCTC  
5151 ATGGCTGCCCG TCGTTCCCAT CCCTGCGCTG CGAGCCTTCT CCCTACAGGC  
5201 GGCCATAGTG GTTGGCTGCA CCTTTGTAGC CGTGATGCTT GTCTTCCCAG  
5251 CCATCCTCAG CCTGGACCTA CGGGGGCGCC ACTGCCAGCG CCTTGATGTG  
5301 CTCTGCTGCT TCTCCAGgt a ctgcgtgcgc cccagccct tccctccgtg  
5351 acccacgcca gcctgtcccc tcaccagcat ttcaaggcac agacctgtca  
EXON 13  
5401 tccactctct acctttcca gTCCCTGCTC TGCTCAGGTG ATTCAAGATCC  
5451 TGCCCCAGGA GCTGGGGGAC GGGACAGTAC CAGTGGCAT TGCCCACCTC  
5501 ACTGCCACAG TTCAAGCCTT TACCCACTGT GAAGCCAGCA GCCAGCATGT  
5551 GGTCAACCATC CTGCCTCCCC AAGCCCACCT GGTGCCCTCA CCTTCTGACC  
5601 CACTGGGCTC TGAGCTCTTC AGCCCTGGAG GGTCCACACG GGACCTTCTA  
5651 GGCCAGGAGG AGGAGACAAG GCAGAAGGCA GCCTGCAAGT CCCTGCCCTG  
5701 TGCCCCGCTGG AATCTTGCCC ATTTGCCCG CTATCAGTTT GCCCCGTTGC  
5751 TGCTCCAGTC ACATGCTAAG gtaagactgg gcagagcagg gcagagactt  
5801 agcatctctg ggcccagaag ggcagagagg gcttagtcca ctgcctgagg  
EX  
5851 ggctgggggc agccctgggg tctccagctt agttgctaca tcccgca gGC  
XON 14  
5901 CATCGTGCTG GTGCTCTTG GTGCTCTTCT GGGCCTGAGC CTCTACGGAG  
5951 CCACCTTGGT GCAAGACGGC CTGGCCCTGA CGGATGTGGT GCCTCGGGGC  
6001 ACCAAGGAGC ATGCCTTCCT GAGGCCAG CTCAGGTACT TCTCCCTGTA  
6051 CGAGGTGGCC CTGGTGACCC AGGGTGGCTT TGACTACGCC CACTCCCAAC  
6101 GCGCCCTCTT TGATCTGCAC CAGCGCTTCA GTTCCCTCAA GGCGGTGCTG  
6151 CCCCCACCGG CCACCCAGGC ACCCCGCACC TGGCTGCACT ATTACCGCAA  
6201 CTGGCTACAG Ggtgagagggc gaggagacgg gcagggaggg gtgctgcagg  
6251 gagaaaacgcc ctggggccac cagctaata g aaccctatcc tggctccccc  
EXON 15  
6301 cagGAATCCA GGCTGCCTTT GACCAAGGACT GGGCTTCTGG GCGCATCACC  
6351 CGCCACTCGA CCCCAATGGC TCTGAGGATG GGGCCCTGGC CTACAAGCTG  
6401 CTCATCCAGA CTGGAGACGC CCAGGGAGCTT CTGGATTCA GCCAGgttgg

Fig.1E



## REPLACEMENT SHEET

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6451 gagaggcgtg gaggggtcca ctagtacagg ggctgcaggc ctccctggcc  
EXON 16  
6501 caggccttca gcccctctcg cctctgcagc TGACCACAAG GAAGCTGGTG  
6551 GACAGAGAGG GACTGATTCC ACCCGAGCTC TTCTACATGG GGCTGACCGT  
6601 GTGGGTGAGC AGTGACCCCC TGGGTCTGGC AGCCTCACAG GCCAACTTCT  
6651 ACCCCCCACC TCCTGAATGG CTGCACGACA AATACGACAC CACGGGGAG  
6701 AACTTTCGCA gtgagtcgg gggggagctc ggcaagagcc tcagcctcgc  
6751 ccacacaaggc cctgagcctg agggccctgcc cactctgccc cgtgctcacc  
EXON 17  
6801 gcccgtccc tctccctttt ctcccttccc ctcccttcca cagTCCC GCC  
6851 AGCTCAGCCC TTGGAGTTTG CCCAGTTCCC TTTCCTGCTG CGTGGCCTCC  
6901 AGAAGACTGC AGACTTTGTG GAGGCCATCG AGGGGGGCCCG GGCAGCATGC  
6951 GCAGAGGCCG GCCAGGCTGG GGTGCACGCC TACCCAGCG GCTCCCCCTT  
7001 CCTCTTCTGG GAACAGTATC TGGGCCTGCG GCGCTGCTTC CTGCTGGCCG  
7051 TCTGCATCCT GCTGGTGTGC ACTTTCTCG TCTGTGCTCT GCTGCTCCTC  
7101 AACCCCTGGA CGGCTGGCCT CATAgtgagt gcttgcagga gtggggacag  
7151 agacacccca cccttccctg cccagcctgt catccctcct gccaggagcc  
EXON 18  
7201 ctctgtgagc cctgtctccc tcagGTGCTG GTCCTGGCGA TGATGACAGT  
7251 GGAACTCTTT GGTATCATGG GTTTCCTGGG CATCAAGCTG AGTGCCATCC  
7301 CCGTGGTGAT CCTTGTGGCC TCTGTAGGCA TTGGCGTTGA GTTCACAGTC  
7351 CACGTGGCTC TGGGCTTCCT GACCACCCAG GGCAGCCGGA ACCTGCGGGC  
7401 CGCCCATGCC CTTGAGCACA CATTGCCCC CGTGACCGAT GGGGCCATCT  
7451 CCACATTGCT GGGCTGCTC ATGCTTGCTG GTTCCCACCT TGACTTCATT  
7501 GTAA.....  
7551 ..... gtagggaggg ctccggggcag ggaggcaggg ctcaaggacag  
EXON 20  
7601 gcctgggctg actccccca caccctaccc tcagGTACTT CTTTGCGGGCG  
7651 CTGACAGTGC TCACGCTCCT GGGCCTCCTC CATGGACTCG TGCTGCTGCC  
7701 TGTGCTGCTG TCCATCCTGG GCCCGCCGCC AGAGgtgacc acaccctcgg  
7751 caccatccct ctactccctag cccaaaggac ggggttaggaa gaggcaaggaa

Fig.1F



## REPLACEMENT SHEET

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7801 aagggacaga gccctgtggc ccacagacag gtacccccc aacaggtgcc  
7851 accagctgaa ggtggcagcc tcctccttc cccagacacc atttcctgc  
7901 ccctcagccc tcctggcttc ttcatggac ccaccttaga cttttaggat  
7951 ccagaacaag gtgcagggtt tgccccaggc ctcaacatcc tgtcgccctgc  
8001 cagctctcat atcctgctgg agaccaacaa gggccccagc ttcccaacag  
8051 tcataggtaat cccagcggat atgctaaagg ggacgggagc cccaggggccc  
EXON 21  
8101 cgtgggctta ctggggctgg tgtctccca cagGTGATAC AGATGTACAA  
8151 GGAAAGCCCA GAGATCCTGA GTCCACCAGC TCCACAGGGGA GGCGGGCTTA  
8201 Ggtggggggc atcctcctcc ctgccccaga gcttgcac agtactacc  
8251 tccatgaccg tggccatcca cccacccccc ctgcctggtg cctacatcca  
8301 tccagccct gatgagcccc cttggcccc tgctgtcact agctctggca  
8351 acctcagttc caggggacca ggtccagcca ctgggtgaaa gagcagctga  
8401 agcacagaga ccatgtgtgg ggcgtgtgg gtcactggga agcactgggt  
8451 ctggtgtag acgcaggatg gaccctgga gggctctgct gctgctgcat  
8501 cccctctccc gacccagctg tcataggcct ccctgatatac catacagaac  
8551 agccaccgat ttgcacatcc aggccctgtgt gagcctgtat ctgtgtca  
8601 tgagagtgaa agctggcaact tggggctgca gtgcagccct gtcccccttc  
8651 ccacccaca ccactgcctg cccagctgac caagcctgag ggaccctcca  
8701 gcacccttcc gtctggtgac tcctggcag gctctccata tccctgcccc  
8751 cctcctacca catccattat ttatatgaaa atgtctattt ttgtgtata  
8801 catacatgtt agctatgtat aaagttttat tttttaaaga atgaaatata  
8851 ttctatgtga agctatgtat aaagttttat tttttaaaga atgaaatata  
8901 ttctatgtga actaatctcg aaagttttat tttttaaaga atgaaatata  
8951 ttctatgtgt gcaagtgaac attagcttca gttgctttt ttggacaga  
9001 gtggggagtt tgcaagtgaa cattagctat tggaaaggagc ttctctggtg  
9051 ccaggacctg aggtattagc ttctcttagtt ctgggtggaa aagacccca  
9101 attctggatt tttgtcatat acttggtaac atcatctgga ttaagtgcctt

Fig.1G



## REPLACEMENT SHEET

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9151 actataacaaa acgataacaa attttgttgg tgtgaaatcc tactgggttc  
9201 aatctggaga ccgagagcag aaaaaaaaaaaga accccactgt gtggcttca  
9251 gagccaccat attccagcct gcccgtctct ccagactcac ctccacctac  
9301 ctgcttcacc cgacacggaa acggcaaggc agaggggcaa agccatgcag  
9351 caggtggaag gcgaggtgga ggcagatcag gaaagcagcc agttgaagca  
9401 gagagaggtc aacagggtct gggagcttc tcaggagggtt tgtggaccca  
9451 gggaaaggag ccaggttcca gagcaacctc caaggcaaag gcctctgtaa  
9501 gttgggtgtc ctgacagccg agaggtgtct ttggccagtc agccagtgg  
9551 tcagttgcgg gaactgctca gaaactgagg tgctagcagt tagtgaggac  
9601 acagcgtaag ttgtttgttc tgtgaaagtt gaacagctcc actaagcaga  
9651 ggccttgaag agtggccaca gcccctggaat agagcacaga gcctcaccta  
9701 gaggcgtggg gaggttgca actgcccctt cccagccata gcttaggacc  
9751 catagtcttag ttcacataga ccctggctc caaccaccca ctcaccagga  
9801 atgatcccac cccaggaaca atgcgttctc acatcccacc ccacctggac  
9851 aaaggccagg aaatcatgtt ctgaccaaaaa gatacaacaa caaaaacaac  
9901 aacaacaaaa aacgcctatt gcaattgaat ccacgctaaa atgcctaaaa  
9951 agctcaagag aagcgggtag ttggcagaga acctagagta gggggtgcaa  
10001 ccagcaggcc caagggaggg aggctgcatt tgggtccagc agtgtttggg  
10051 tcaccaagaa gggccttcta ggtggagcag agagagctca ccaggccaga  
10101 atagtgc当地 ggggtcagc cctcagtgcc acttaccagc ggagtaacc  
10151 tgggcaagtt agccagcctc actaagcctc cccatcttca tctttccagg  
XON 22  
10201 CCCGAGGAGA TCTAGCCTCT GCCTCCCACC CCAGCACCCCC CTCATCAGAC  
10251 ACAAGGAGCG CCACTGTCTG GACAGGCTGA ATTGGTCTTC GGGTCCCTAA  
10301 TTTCTCATAC GCCATTCCCT CTGCCTAGAA CACTTTCTCA CCTCCCTTG  
10351 ATGTGACCCCC ATATCACCCCT TCGAGGTGAA TTGGATCGGA TGCCATCTCC  
10401 TCCAGGAGGG GTGGGGTCGT GCCTCCTGTG AGGTCCCAGT GCCCCTGAGT  
10451 GTCTGTGCCCT GTCTGTTCC CCGTCCCTCT CTCTAAGCCCC GGAGGCTTAC

Fig.1H



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10501 TGCGGGTAAG GACGGCGGGA CAGGACCTTA ACCCCTGGGA CGAACACCAAG  
10551 CTCCGCAAAG GACTCCGCAC CCGGGGCCGC CCACGGGGTG CGGGTCCCAG  
10601 GAGGACCAGC AGAGAGGAGC ATAGGAGAGC AAAGGAGATC AGTGACCCAT  
10651 GGCTTCCCCG GTGGCGCGGA ACAGCCCGGA GCCGCCTGTG ATTTGCATAC  
10701 CCATGGTGCA CCACGAAAAG ATACCCCTCAA GATGCTTGCA CTCCCTCTGT  
10751 GCGCGCATTG CTGCACTGTT TTAGAGCATG ATGCCTCTTA CACGCATCTG  
10801 TGTGCATAAA CTACATATAAG GGAGTGCCTA CCACGCAGGC ATCCAACAAAC  
10851 CATAAGTGTG TTAAGTGTAA GTTCTCCCTG CGAGGTTCGA AGCGGAAGTC  
10901 ACGAATATAC TCGGGTTTCT CTTCAAAGCG CATAAAATCTT TCGCCTTTTA  
10951 CTAAAGATTT CCGTGGAGAG AAAGTTGTGA GTTTTTATTC AATTTTTTGA  
11001 GGCTCTTAT TTCTGAGGC TACATTTTA AGTATTAAAAA GTTAGGCAAC  
11051 TACAAAAAAA AAAAAAAA

Fig.11



## REPLACEMENT SHEET

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1 ..... MTRSPPLRELP..... 11  
 1. MASAGNAAEPQDRGGGGSGCIGAPGRPAGGGRRRTGGLRRAAPDRDYL 50  
 12 .. PSYTPPARTAAPQI...LAGSLKAPLWLRAYFOGLLFSLGCGIQRHCG 56  
 51 HRPSYCDAA.FALEQISKKGATGRKAPLWLRAKFQRLFKLGCYIQKNCG 99  
 57 KVLFLGLLAFLGALALGLRMAIIETNLEQLWVEGSRVSQELHYTKEKLGE 106  
 100 KFLVVGLLIFGAFAVGLKAANLETNVEELWVEVGRVSRELNYTRQKIGE 149  
 107 EAAYTSQMLIOTARQEGENILTPEALGLHLOAALTASKVQVSLYKGSDL 156  
 150 EAMFNPQLMIQTPKEEGANVLTTEALLQHLDLQASRVHVMYNRQWKL 199  
 157 NKICYKSGVPLIENGMIERMIEKLPCVILTPLCDFWEGAKLQGGSAYLP 206  
 200 EHLCYKSGELITETGYMDQIIIEYLYPCLIITPLDCFWEAKLQSGTAYLL 249  
 207 GRPDIQWTNLDPEQLLEELGPFA.SLEGFRELLDKAQVGQAYVGRPCLHP 255  
 250 GKPPLRWTNFDPLEFLEELKKINYQVDSWEEMLNKAEVGHGYMDRPCLNP 299  
 256 DDLHCPPSAPNHHSRQAPNVAHELSGGCHGFSHKFMHWQEELLLGGMARD 305  
 300 ADPDCPATAPNKNSTKPLDMALVLNGGCHGLSRKYMHWQEELIVGGTVKN 349  
 306 PQGELLRAEALQSTFLLMSPROLYEHFRGDYQTHDIGWSEEQASTVQLQAW 355  
 350 STGKLVSAAHALQTMFQLMTPKQMYEHFKGYEYVSHINWNEDKAAAILEAW 399  
 356 QRRFVQLAQEALPENASQQIHAFSSTLDDILHAFSEVSAARVVGYYLLM 405  
 400 QRTYVEVHVQSVAQNSTQKVLSFTTTLDDILKSFSDVSVIRVASGYLLM 449  
 406 LAYACVTMLRWDCAQSOGSVGLAGVLLVALAVASGLGLCALLGITFNAAT 455  
 450 LAYACLTMLRWDCSKSQGAVGLAGVLLVALSVAAGLGLCSLIGISFNAAT 499  
 456 TQVLPPFLALGIGVDDVFLAHAFTEALPG..TPLQERMGECLQRTGTSVV 503  
 500 TQVLPPFLALGVGVDDVFLAHAFSETGQNKRIPFEDRTGECLKRTGASVA 549  
 504 LTSINNMAAFLMAALVPIPAPLRAFSLQAAIVVGCTFVAVMLVFPAILSLD 553  
 550 LTSISNVTAFFMAALIPIPAPLRAFSLQAAVVVFNFAMVLLIFPAILSM 599  
 554 LRRRHQCRLDVLCFSSPCSAQVIQILPQELGDGT.....VPVG 592  
 600 LYRREDRRLDIFCCFTSPCVSRVIQVEPQAYTDHDNTRYSPPPPYSSHS 649  
 593 IAH.....LTATVQAFTHCEASSQHVVTILPPQAH.....VPPPSDPLGS 633  
 650 FAHETQITMQSTVQLRTEYDPHTHVVYTTAEPRSEISVQPVTVTQDTLSC 699

Fig.2A



## REPLACEMENT SHEET

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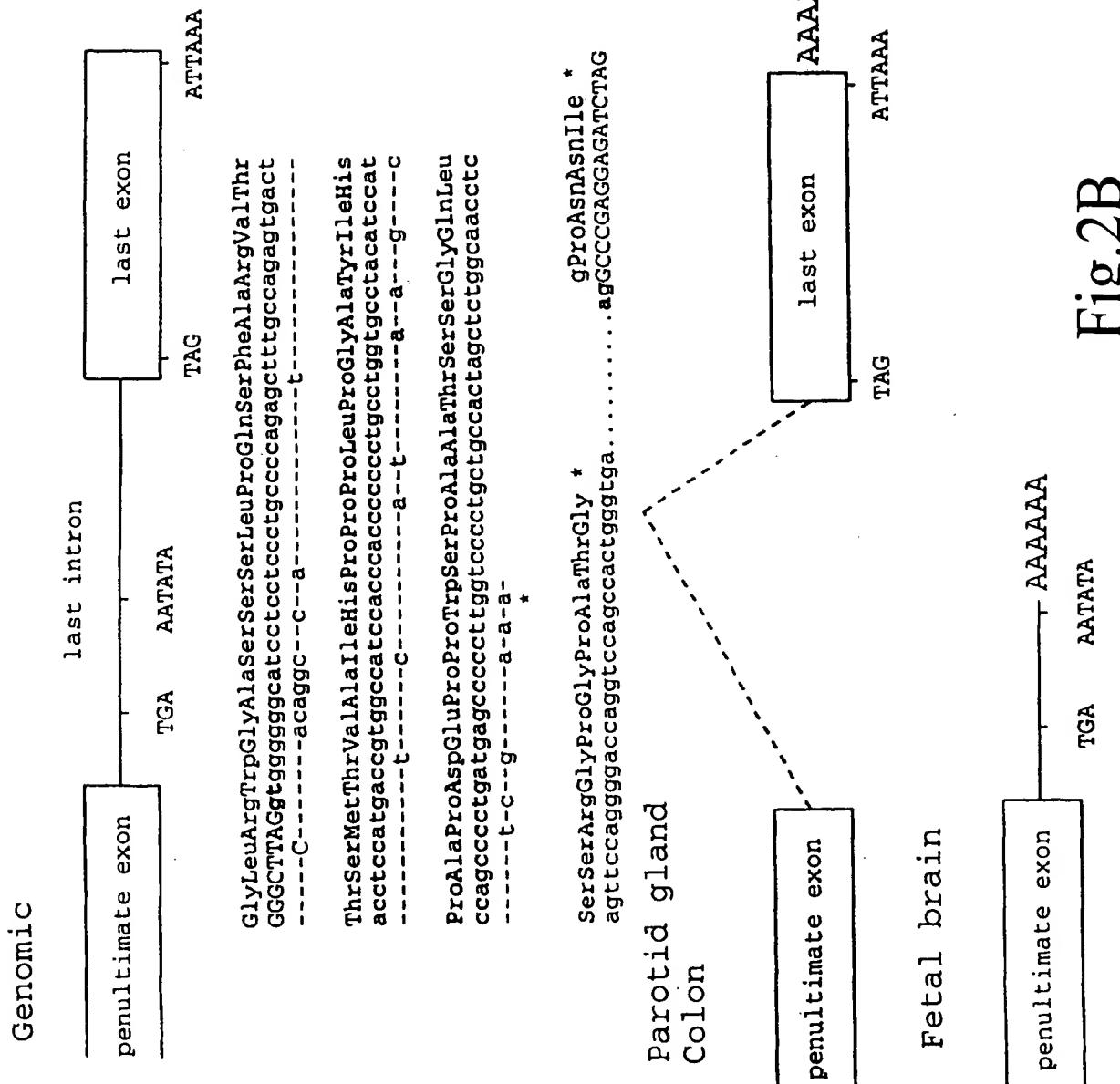
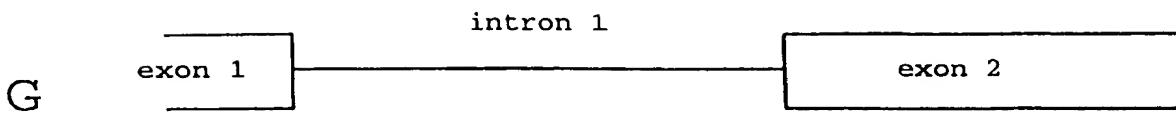


Fig. 2B



## REPLACEMENT SHEET

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Pro Gln Ile Leu Gln Gly  
 CCC CAG gt.....gt.....ag ATC CTA.....Cag GGC  
 ← 67 bp → ← 755 bp → ← 51 bp →

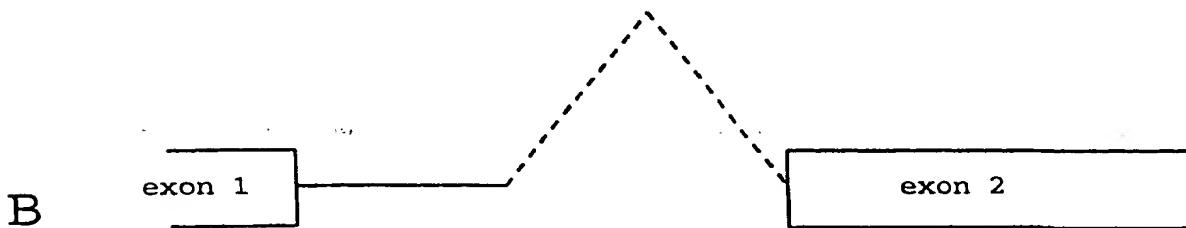
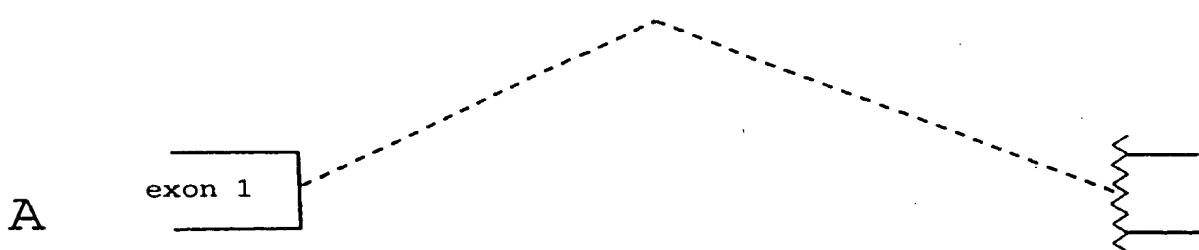
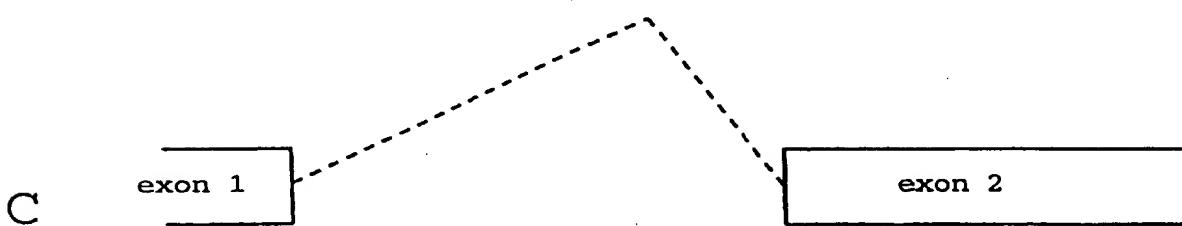


Fig.2C



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REPLACEMENT SHEET

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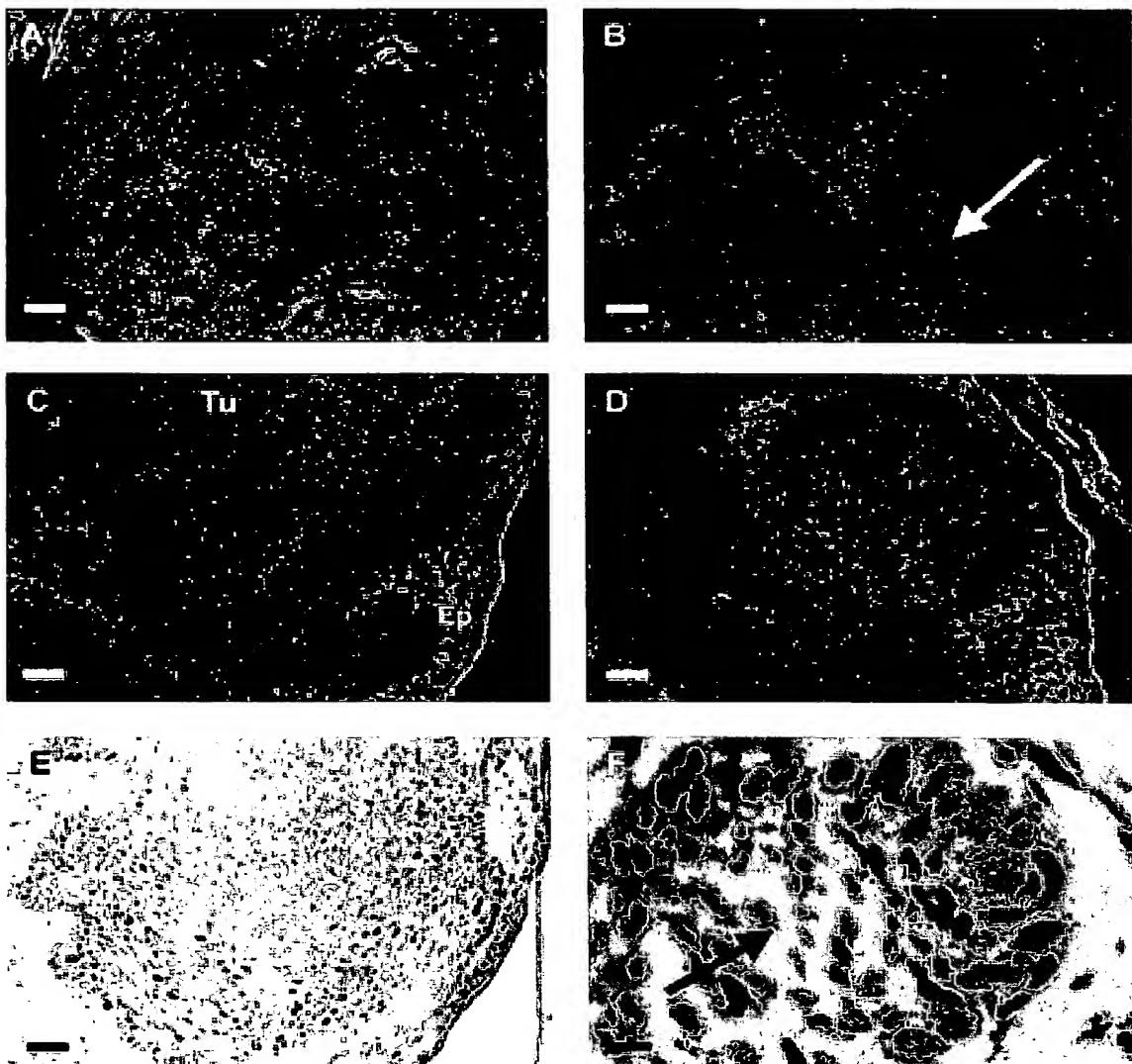


Fig.3